

manager and will include an assessment by the crew commander of the payload specialist's suitability for space flight.

(4) The mission manager is responsible for verifying to the payload sponsor that all crew members are properly trained for in-flight payload operations.

(i) The medical program for payload specialists will be continued during the preflight period in accordance with the NASA Class III Space Flight Medical Selection Standards.

(ii) If, during the preflight period, the number of additional crew members is reduced to fewer than that agreed to, or an additional crew member does not meet the certification requirements, the necessary reprocessing may be initiated to provide replacements consistent with the above described selection process and the STS training requirements.

(f) *Designation of primary and backup payload specialists (when required).* At an appropriate time designated by the mission manager (not later than 9 months prior to flight), the IWG for NASA and NASA-related payloads or payload sponsor for all other payloads will recommend which payload specialists should be designated as prime and which as backup. However, in cases where mission specialists have been selected for the payload specialist position(s), they will be considered as primary at the time of selection. The recommendations will be forwarded by the mission manager to the Program Office which will review the recommendations and forward them to the Associate Administrator for Space Flight for concurrence. The payload sponsor and the Associate Administrator for Space Flight will advise the Administrator of the selections.

(g) *Effective date.* The described selection process will apply to all STS missions for which selections have not been approved prior to December 31, 1988.

§ 1214.305 Payload specialist responsibilities.

(a) *Relationship with flight crew.* The crew commander has overall responsibility for crew integration and the safe and successful conduct of the mission.

With respect to crew and vehicle safety, the commander has ultimate responsibility and authority for all assigned crew duties. The payload specialist is responsible to the authority of the commander and operates in compliance with mission rules and Payload Operation Control Center directives. Payload specialists are expected to operate as an integral part of the crew and will participate in crew activities as specified by the crew commander.

(b) *Operation of payload elements.* The payload specialist will be responsible for the operation of the assigned payload elements. Onboard decisions concerning assigned payload operations will be made by the payload specialist. A payload specialist may be designated to resolve conflicts between the payload elements and approve such deviation from the flight plan as may arise from equipment failures or STS factors. In the instance of STS factors, the mission specialist will present the available options for the payload-related decisions by the payload specialist.

(c) *Operation of STS equipment.* The payload specialist will be responsible for knowing how to operate certain Orbiter systems, such as hatches, food, and hygiene systems, and for proficiency in those normal and emergency procedures which are required for safe crew operations, including emergency egress and bail out. The responsibility for on-orbit management of Orbiter systems and attached payload support systems and for extravehicular activity and payload manipulation with the Remote Manipulator System will rest with the NASA flight crew. The NASA flight crew will operate Orbiter systems and standard payload support systems, such as Spacelab and Internal Upper Stage systems. With approval of the commander, payload specialists may operate payload support systems which have an extensive interface with the payload.

§ 1214.306 Payload specialist relationship with sponsoring institutions.

Specialists who are not U.S. Government employees must enter into a contractual or other arrangement establishing an obligatory relationship with